

## REMARKS

Claims 1 and 5 have been amended. Claims 1, 3, 5-32 are pending in the present application. Claims 1, 3, 7, 12-20, 22, 23, 25-28, and 30 have been amended to more clearly define the subject matter of the present application.

### Claim rejection under 35 USC §112:

The Examiner rejected claim 5 under 35 U.S.C. 112, second paragraph. as being indefinite. Applicant amended claim 5 according to the proposal of the Examiner to include the proper claim reference. Therefore, Applicant believes that the §112 rejection is now overcome.

### Claim rejection under 35 USC §103:

The Examiner maintains his rejection of claims 1, 3, 5-11, 15-29, 31-32 under 35 U.S.C. 103, as being unpatentable over Katoh et al.(US 5,402,641) in view of Cornelison et al. (US 5,240,682). Applicant respectfully disagrees. The current set of claims includes limitations which are neither shown nor disclosed by the prior art. However, even though Applicant believes that the current claim 1 clearly defines the present invention, to further the prosecution, Applicant amended claim 1 to even more clearly point out the present invention. The former claim included the limitation that the oxide gas absorber includes "...a support member wherein the support member is a metal support member having a surface arranged to be heated by an electrical current..." Thus, the support member is clearly defined to be an electrical heating element. Applicant amended claim 1 to more clearly point out that the support member is an electrical heating member. No new matter has been added.

Applicant agrees that the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) should be applied to establish obviousness. However, the Examiner did not determine the scope and content of the prior art and in particular the scope of the present claims correctly.

Firstly, the former claim 1, and the amended claim 1, clearly included the limitation that the support member is an electrical heating member. Neither Katoh nor Cornelison disclose such a limitation. Katoh does not disclose a support member and lacks the limitation of a heating member at all. Cornelison discloses that the absorption layer is heated

directly. Cornelison does not disclose that the support member is electrically heated. The support member is merely used to transfer electrical current to the absorption layer (the converter) which is then heated by the current. See, col. 7, lns. 40-43 of Cornelison. Merely during the assembly process, the whole arrangement is heated to perform the brazing.

Secondly, the former claim 1 and the amended claim 1 included the limitation *"...an absorption member arranged on the surface of the support member having a total surface area which is larger than that of the underlying area of the support member accessible to exhaust gas flowing through the exhaust line for reversible absorption of at least one nitrogen oxide (NO<sub>x</sub>) and at least one oxide of sulfur (SO<sub>x</sub>)..."* This limitation includes that the absorption member is arranged on the surface of the support member. Claims must be interpreted according to the specification. The specification clearly states that the absorption layer is made of two foils wherein the second foil is corrugated and connected with the surface of the first foil at the corrugation crests. See page 9, lns 4-12. Thus, the surface of the absorption member is arranged on top of the surface of the support member. Cornelison, on the contrary, shows that only an edge of the foil is connected to the support member 20 and thus the absorbing member is not arranged on the surface of the support member.

Furthermore, the Examiner states that Katoh states in his rejection that Katoh et al's monolith is coated with metals that result in a layer of alumina having a greater surface than the underlying alumina. However, the present claim is not directed to a coating of a layer. Moreover, the Examiner admits that Katoh fails to disclose a support member. Therefore, a conclusion that a top layer results in a greater surface than a support member surface cannot be followed when there is no support member disclosed. Thus, a combination of Katoh and Cornelison cannot result in a structure as claimed in the independent claim 1.

The dependent claims include all the limitations of independent claim 1 and are thus patentable at least to the extent of claim 1. However, these claims include further limitation which are neither disclosed nor suggested by the prior art. For example, with respect to claim 3, the Examiner cited that Cornelison discloses in col. 4, lns. 16-29 that the support member is a metal sheet or foil. Applicant respectfully disagrees. Cornelison merely discloses that the converter, namely the absorption layer 10, is a stainless steel foil strip. However, Cornelison

does not disclose that the support member is made of a metal foil as required by the dependent claim 3.

Similarly, with respect to claim 5 and 6, the Examiner cited that Cornelison discloses in col. 4, lns. 26-29 that the support member is a metal sheet or foil having a thickness less than or equal to 0.16mm. Applicant respectfully disagrees. Cornelison merely discloses that the converter, namely the absorption layer 10, is a stainless steel foil strip. Again, the converter or absorption layer is not the support member. Cornelison teaches a completely different arrangement of support member and absorption layer as discussed above. Thus, Cornelison does not disclose that the support member is made of a metal foil with the particular measurements as required by the dependent claims 5 and 6.

Claims 7-11 concern particular design choices of the oxide gas absorber. The Examiner stated that these kind of design choices are well-known in the art. Applicant respectfully disagrees. These dependent claims include all the limitation of the at least independent claim 1. The Examiner did not cite a single reference which anticipates these claims or renders them obvious.

With respect to claim 25 and 26, the Examiner stated that Cornelison discloses in col. 1, line 23 and the abstract that the support member is made of ceramic material. Applicant respectfully disagrees. The abstract is completely silent about ceramics and col. 1, line 23 refers to the converter or absorber member and not to a support member.

Claim 1, 3, 5-11, 15-29, 31-32 have been rejected under 35 U.S.C. 103, as being unpatentable over Araki et al. (US 5,404,719) in view of Katoh et al.(US 5,402,641) and Cornelison et al. (US 5,240,682). The Examiner bases his rejection on the assumption that Araki discloses allegedly the essentially same invention as of present claim 1, but fails to disclose the control means during regeneration. Applicant respectfully disagrees. The present independent claim 1 includes limitations neither disclosed nor suggested by Araki. The same arguments as stated above with respect to Katoh also apply to Araki.. Araki does neither disclose nor mention a gas absorber having a two part structure as claimed in independent claim 1. Araki does not specifically disclose the use of a heating element in the figures. However, Araki discloses in column 5, lns. 53-56 that a electric heater can be arranged in the interior of the casing. Araki is

nevertheless silent about how this heater is configured and how such a heater is placed within the absorber. Therefore, Araki does not introduce anything beyond Cornelison who already teaches to use a heater within a gas absorber. Again, all the arguments presented above with respect to Cornelison, therefore, also apply for this rejection.

Therefore, a combination of Katoh, Araki and Cornelison does not render the present invention obvious.

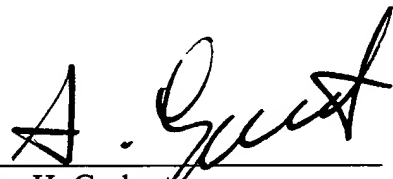
The dependent claims 2, and 5-32 are dependent on independent claim 1 and include all the limitations of claim 1. Therefore, these claims are patentable at least to the extent of claim 1.

### **CONCLUSION**

The application as defined in the pending claims is patentable under 35 U.S.C. §112 and §103 in view of the cited prior art. Therefore, applicants respectfully request withdrawal of the rejection and allowance of all pending claims.

Applicants do not believe that any other fees are due at this time; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to this document, the Commissioner is authorized to deduct the fees from Deposit Account No. 02-0383, (*formerly Baker & Botts, L.L.P.*) Order Number 070255.0514.

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